

LONG-TERM CLINICAL COURSE, OUTCOME & EFFICACY OF TREATMENT IN PRIMARY ANGLE CLOSURE GLAUCOMA IN A TERTIARY EYE CARE HOSPITAL IN SOUTH INDIA.

ABSTRACT

Purpose: The aim of the study was to assess the long term clinical course in Primary Angle Closure Glaucoma (PACG) and to analyse the efficacy of Nd-YAG Peripheral Iridectomy as the primary treatment in PACG and evaluating the efficacy of trabeculectomy in patient eyes, where there was treatment failure with Nd-YAG PI and antiglaucoma medications based on the primary outcome of Intraocular pressure (IOP) and secondary outcome parameters like change in gonioscopy, Cup to disc ratio(CDR), visual acuity and visual field findings.

Methods:A prospective observational study was done involving 80 eyes of 40 patients who were diagnosed with PACG and had undergone therapeutic Nd-YAG PI during the period of July 2013 to September 2013 and the patients were followed up till July 2015.

Results: In our study, for the 80 eyes,the mean IOP before Nd-YAG PI was 30.21 (11.68) which declined to 17.74(4.11) in the last followup visit,50 eyes of 80 who had undergone only YAG PI had decrease in IOP at follow up. While, the 30 eyes of 80 who had undergone YAG PI plus trabeculectomy also

had decrease in IOP at follow up (27.53 to 17.00 with p value <0.001).The mean presenting visual acuity was 0.18 at presentation, which worsened to 0.30 at last followup. 30 eyes of 80 who had undergone YAG PI plus trabeculectomy had significant deterioration of visual acuity at follow up(0.39 to 0.48 with P value of 0.008). Mean CDR at presentation was 0.73 (0.13) which changed to 0.74(0.13) in the 6 month followup . In preopgonioscopy, 45 eyes(56.3)% had >270 degree angle closure with PAS which changed to 39 eyes (48.7%) having narrow angles with PAS and 6 eyes(7.5%) had narrow angles with Patent ostium. Visual field examination showed majority of patients with superior arcuatescotoma and double arcuatescotoma at presentation (42.5% and 40 % respectively) and 10 patients (12.5%)with advanced or end stage field defects. Post operatively there was increase in double arcuatescotoma (42.5%).

Conclusion: YAG PI is effective as the primary treatment in the management of PACG.Trabeculectomy was found to be very much successful in controlling the IOP and retard the progression of PACG in failed cases of YAG PI with or without medications, especially in >270 degree synechial angle closure cases with higher IOP,advanced glaucomatous cupping or field defects at initial presentation .

Keywords: Primary angle closure, Glaucoma, Intraocular pressure, Gonioscopy, CDR, Nd YAG, Iridectomy,Trabeculectomy